I. AMENDMENTS

IN THE CLAIMS

Cancel claims 3, 13-19, 23, 29-39, and 41 without prejudice to renewal.

Please enter the amendments to claims 1, 6, 7, 20, and 26, as shown below.

Please enter new claims 42-45, as shown below.

1. (Currently Amended) A method of reducing degeneration of ~~retinal neurons~~ a photoreceptor in a mammal caused by exposure to light ~~to~~ or other environmental trauma, the method comprising administering to the mammal, prior to, during or following such exposure, a dose of a neurotrophic factor effective to reduce degeneration of a photoreceptor ~~retinal neurons~~, wherein said administration is intraocular or systemic, wherein said factor is selected from brain derived neurotrophic factor (BDNF), ciliary neurotrophic factor (CNTF), neurotrophin-3 (NT-3), acidic fibroblast growth factor (aFGF), basic fibroblast growth factor (bFGF), interleukin-1 beta (IL-1β), tumor necrosis factor-alpha, and insulin-like growth factor-2, or an active fragment thereof; and wherein degeneration of a photoreceptor ~~retinal neurons~~ is reduced.

2. (Original) The method of claim 1 wherein said neurotrophic factor is brain derived neurotrophic factor, ciliary neurotrophic factor, neurotrophin-3 or a combination thereof.

3. (Canceled)

4. (Original) The method of claim 1 wherein said administration is intraocular.

5. (Original) The method of claim 4 wherein said administration is into the vitreous or into the subretinal (interphotoreceptor) space.

10 ~~6~~. (Currently Amended) The method of claim ~~1~~ 6 wherein said administration is systemic delivery.

6 7. (Currently Amended) The method of claim ~~6~~ 1, wherein said neurotrophic factor has been modified to increase its ability to be transported across the blood-retinal barrier.

7 8. (Original) The method of claim 6 ~~7~~ wherein said modification comprises increasing the lipophilicity of the factor.

8 9. (Original) The method of claim 6 ~~7~~ wherein said modification comprises glycosylation of the factor.

9 10. (Original) The method of claim 6 ~~7~~ wherein said modification comprises increasing the net positive charge on said factor.

11. (Original) The method of claim 10 ~~6~~ wherein said systemic delivery is by an oral route.

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12. (Original) The method of claim 10 6 ~~7~~ wherein said systemic delivery is by subcutaneous, intravenous or intramuscular injection.

13.-19 (Canceled)

13 20. (Currently Amended) A method of reducing degeneration of a photoreceptor ~~retinal neurons~~ in a mammal having a pathological condition wherein retinal degeneration occurs, comprising administering to said mammal a dose of a neurotrophic factor effective to reduce degeneration of a photoreceptor ~~retinal neurons~~, wherein said administration is intraocular or systemic, wherein said factor is selected from brain derived neurotrophic factor (BDNF), ciliary neurotrophic factor (CNTF), neurotrophin-3 (NT-3), acidic fibroblast growth factor (aFGF), basic fibroblast growth factor (bFGF), interleukin-1 beta (IL-1β), tumor necrosis factor-alpha, and insulin-like growth factor-2, or an active fragment thereof; and wherein degeneration of a photoreceptor ~~retinal neurons~~ is reduced.

14 21. (Original) The method of claim 13 ~~20~~ wherein said pathological condition is retinal detachment, age-related or other maculopathies, photic retinopathies, surgery-induced retinopathies (either mechanically or light-induced), toxic retinopathies, diabetic retinopathies, retinopathy of prematurity, viral retinopathies such as CMV or HIV retinopathy related to AIDS; uveitis; ischemic

retinopathies due to venous or arterial occlusion or other vascular disorder, retinopathies due to trauma or penetrating lesions of the eye, peripheral vitreoretinopathy or inherited retinal degenerations.

15 ~~22.~~ (Previously presented) The method of claim 13 ~~20~~ wherein said neurotrophic factor is brain derived neurotrophic factor, ciliary neurotrophic factor, neurotrophin-3 or a combination thereof.

23. (Canceled)

16 ~~24.~~ (Original) The method of claim 13 ~~20~~ wherein said administration is intraocular.

17 ~~25.~~ (Original) The method of claim 16 ~~24~~ wherein said administration is into the vitreous or into the subretinal (interphotoreceptor) space.

22 ~~26.~~ (Currently Amended) The method of claim 18 ~~42, 20~~ wherein said administration is by systemic delivery.

23 ~~27.~~ (Original) The method of claim 22 ~~26~~ wherein said systemic delivery is by an oral route.

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24 ~~28.~~ (Original) The method of claim ~~22~~ ~~26~~ 27 wherein said systemic delivery is by subcutaneous, intravenous or intramuscular injection.

29.-39. (Canceled)

3 ~~40.~~ (Previously presented) The method of claim 1, wherein said neurotrophic factor is ciliary neurotrophic factor, or an active fragment thereof.

41. (Canceled)

18 ~~42.~~ (New) The method of claim 13 ~~20~~, wherein said neurotrophic factor has been modified to increase its ability to be transported across the blood-retinal barrier.

19 ~~43.~~ (New) The method of claim 18 ~~42~~, wherein said modification comprises increasing the

lipophilicity of the factor.

20 18
~~44~~. (New) The method of claim ~~42~~, wherein said modification comprises glycosylation of the factor.

21 18
~~45~~. (New) The method of claim ~~42~~, wherein said modification comprises increasing the net positive charge on said factor.